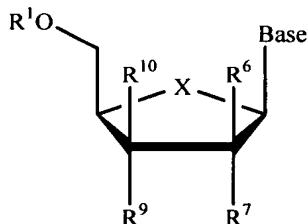


**AMENDMENTS TO THE CLAIMS**

A detailed listing of all claims that are or were in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier.

1. – 88. (Canceled).

89. (Previously Presented) A method for the treatment of a hepatitis C virus infection in a host, comprising administering an anti-virally effective amount of a compound of the formula:



or a pharmaceutically acceptable salt or ester thereof, wherein:

Base is a pyrrolopyrimidine;

R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate; a stabilized phosphate prodrug; acyl; alkyl; sulfonate ester; benzyl, wherein the phenyl group is optionally substituted with one or more of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate;

R<sup>6</sup> is hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, or -N(acyl)<sub>2</sub>;

R<sup>7</sup> is OR<sup>2</sup>, hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -

O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

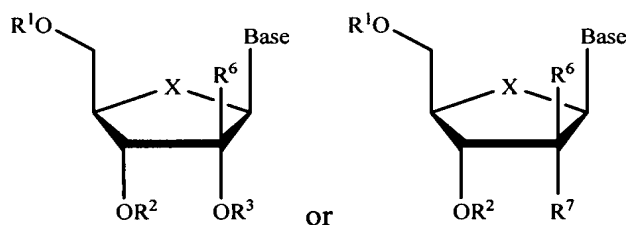
R<sup>9</sup> is hydrogen, OR<sup>2</sup>, hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

R<sup>10</sup> is H, alkyl, chlorine, bromine or iodine; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

90. – 129. (Canceled).

130. (Previously Presented) The method of claim 89 wherein the compound is of the formula:



or a pharmaceutically acceptable salt or ester thereof, wherein:

Base is a pyrrolopyrimidine;

R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H; phosphate or a stabilized phosphate prodrug; acyl; alkyl; sulfonate ester; benzyl, wherein the phenyl group is optionally substituted with one or more of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, or phosphonate; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate;

R<sup>6</sup> is chloro, bromo, fluoro or iodo;

R<sup>7</sup> is OR<sup>2</sup>, hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

R<sup>9</sup> is OR<sup>3</sup>, hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; and  
X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

131. (Previously Presented) The method of claim 89, wherein  
R<sup>10</sup> is H, alkyl, chlorine, bromine or iodine;  
R<sup>7</sup> is OR<sup>2</sup>, alkyl, chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;  
R<sup>9</sup> is hydrogen, OR<sup>2</sup>, hydroxy, alkyl, chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;  
R<sup>2</sup> is H;  
R<sup>6</sup> is alkyl, chlorine, bromine or iodine; and  
X is O.
132. (Previously Presented) The method of claim 89 wherein R<sup>1</sup> is hydrogen or phosphate.
133. (Previously Presented) The method of claim 89 wherein R<sup>2</sup> is hydrogen, acyl or alkyl.
134. (Previously Presented) The method of claim 89 wherein R<sup>6</sup> is alkyl.
135. (Previously Presented) The method of claim 89 wherein R<sup>7</sup> is OR<sup>2</sup> or hydroxy; and R<sup>9</sup> is hydrogen, OR<sup>2</sup>, or hydroxy.
136. (Previously Presented) The method of claim 89 wherein R<sup>7</sup> is hydroxy.
137. (Previously Presented) The method of claim 89 wherein R<sup>9</sup> is hydroxy.
138. (Previously Presented) The method of claim 89 wherein R<sup>7</sup> and R<sup>9</sup> are hydroxy.
139. (Previously Presented) The method of claim 89 wherein R<sup>10</sup> is hydrogen.

140. (Previously Presented) The method of claim 89 wherein X is O.
141. (Previously Presented) The method of claim 89 wherein  
R<sup>1</sup> is hydrogen or phosphate;  
R<sup>2</sup> is hydrogen, acyl or alkyl;  
R<sup>6</sup> is alkyl;  
R<sup>7</sup> is OR<sup>2</sup> or hydroxy;  
R<sup>9</sup> is hydrogen, OR<sup>2</sup>, or hydroxy;  
R<sup>10</sup> is hydrogen; and  
X is O.
142. Canceled.
143. (Currently Amended) The method of claim 89 or 141, ~~141 or 142~~ wherein the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.
144. (Previously Presented) The method of claim 143, wherein the second anti-hepatitis C virus agent is selected from the group consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.
145. (Previously Presented) The method of claim 144, wherein the second anti-hepatitis C virus agent is interferon.
146. (Previously Presented) The method of claim 144, wherein the second anti-hepatitis C virus agent is a protease inhibitor.
147. (Previously Presented) The method of claim 144, wherein the second anti-hepatitis C virus agent is ribavirin.

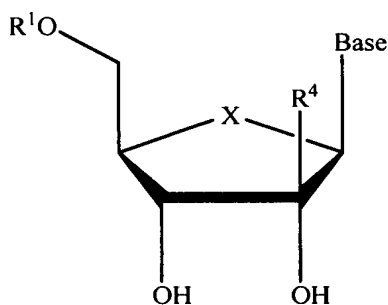
148. (Currently Amended) The method of claim 89 or 141, ~~141 or 142~~, wherein the compound is in the form of a dosage unit.
149. (Previously Presented) The method of claim 148, wherein the dosage unit contains 50 to 1000 mg of said compound.
150. (Previously Presented) The method of claim 148, wherein said dosage unit is a tablet or capsule.
151. (Previously Presented) The method of claim 89, wherein the host is a human.
152. (Currently Amended) The method of claim 89 or 141, ~~141 or 142~~, wherein the compound is at least 85 % by weight of the  $\beta$ -D-isomer.
153. (Currently Amended) The method of claim 89 or 141, ~~141 or 142~~, wherein the compound is at least 90% by weight of the  $\beta$ -D-isomer.
154. (Currently Amended) The method of claim 89 or 141, ~~141 or 142~~, wherein the compound is at least 95% by weight of the  $\beta$ -D-isomer.
155. (Previously Presented) The method of claim 130, wherein the host is a human.
156. (Previously Presented) The method of claim 131, wherein the host is a human.
157. (Previously Presented) The method of any one of claims 132-140, wherein the host is a human.
158. (Previously Presented) The method of claim 141, wherein the host is a human.
159. Canceled.
160. (Previously Presented) The method of claim 143, wherein the host is a human.
161. (Previously Presented) The method of claim 144, wherein the host is a human.
162. (Previously Presented) The method of claim 145, wherein the host is a human.

163. (Previously Presented) The method of claim 146, wherein the host is a human.
164. (Previously Presented) The method of claim 147, wherein the host is a human.
165. (Previously Presented) The method of claim 148, wherein the host is a human.
166. (Previously Presented) The method of claim 149, wherein the host is a human.
167. (Previously Presented) The method of claim 150, wherein the host is a human.
168. (Previously Presented) The method of claim 152, wherein the host is a human.
169. (Previously Presented) The method of claim 153, wherein the host is a human.
170. (Previously Presented) The method of claim 154, wherein the host is a human.
171. (Previously Presented) The method of claim 130, X is O.
172. (Previously Presented) The method of claim 132, X is O.
173. (Previously Presented) The method of claim 134, X is O.
174. (Previously Presented) The method of any one of claims 133, 135-139 wherein X is O.
175. (Previously Presented) The method of claim 89, wherein X is O, and the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.
176. (Previously Presented) The method of claim 175, wherein the second anti-hepatitis C virus agent is selected from the group consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.
177. (Previously Presented) The method of claim 176, wherein the host is a human.
178. (Previously Presented) The method of claim 89, wherein
  - R<sup>1</sup> is hydrogen or phosphate;
  - R<sup>6</sup> is alkyl;
  - R<sup>7</sup> and R<sup>9</sup> are independently OR<sup>2</sup>;

R<sup>10</sup> is hydrogen; and

X is O, S, SO<sub>2</sub>, or CH<sub>2</sub>.

179. (Previously Presented) The method of claim 178 wherein X is O.
180. (Previously Presented) The method of claim 178, wherein R<sup>2</sup> is hydrogen.
181. (Previously Presented) The method of claim 178, wherein R<sup>6</sup> is methyl.
182. (Previously Presented) The method of claim 178, wherein the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.
183. (Previously Presented) The method of claim 182, wherein the second anti-hepatitis C virus agent is selected from the group consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.
184. (Previously Presented) The method of claim 178, wherein the compound is in the form of a dosage unit.
185. (Previously Presented) The method of claim 178, wherein the dosage unit contains 50 to 1000 mg of said compound.
186. (Previously Presented) The method of claim 178, wherein said dosage unit is a tablet or capsule.
187. (Previously Presented) The method of claim 178, wherein the host is a human.
188. (New) A compound of the formula:



or a pharmaceutically acceptable salt or ester thereof, wherein:

Base is a pyrrolopyrimidine;

R<sup>1</sup> is H or phosphate;

R<sup>4</sup> is alkyl; and

X is O.

189. (New) The compound of claim 188, wherein R<sup>1</sup> is hydrogen.
190. (New) The compound of claim 188, wherein R<sup>4</sup> is methyl.
191. (New) A pharmaceutical composition comprising a compound of claim 188, or a pharmaceutically acceptable salt or ester thereof, and a pharmaceutically acceptable carrier.
192. (New) A method for the treatment of a hepatitis C virus infection in a host, comprising administering a compound of claim 188.
193. (New) A method for the treatment of a hepatitis C virus infection in a host, comprising contacting a hepatitis C virus in the host with a compound of claim 188.
194. (New) A method for the treatment of a hepatitis C virus infection in a host, comprising contacting a cell in the host infected with a hepatitis C virus with a compound of claim 188.